AMENDMENTS

AMENDMENTS TO THE CLAIMS

1. (Withdrawn) A method comprising:

at a Set-Top Box, monitoring received input from one or more viewers, the Set-Top box comprising a battery backup, the Set-Top Box comprising a software component adapted to send an event notification responsive to a determination that the Set-Top Box is no longer receiving AC power; and

in response to detecting that the received input is an interaction of a type of interest, sending an event message to an event server, the event message identifying the type of the detected interaction and an indication of the Set-Top Box and receiving new digital content responsive to the event message.

- 2. (Withdrawn) The method of claim 1 wherein when a detected interaction is of a content control type that indicates a change in digital content, additionally sending an indication of the detected interaction to a content provider, so that the content provider can provide new digital content that corresponds to the indicated change.
- (Withdrawn) The method of claim 1 wherein the event server is an Audience Tracker that tracks information related to audiences for multiple groups of content being simultaneously provided.
- 4. (Withdrawn) The method of claim 1 wherein the sending of the event message is performed in real-time.
- 5. (Withdrawn) The method of claim 1 wherein the event message additionally includes information specific to a current occurrence of the detected interaction.
 - 6. (Withdrawn) The method of claim 1 wherein the event message additionally includes

information related to one or more of the one or more viewers.

- 7. (Withdrawn) The method of claim 1 wherein the event message additionally includes information related to the content being presented when the input is received.
- 8. (Withdrawn) The method of claim 1 wherein the Set-Top Box is connected to a display device on which video content is presented to the one or more viewers.
- 9. (Withdrawn) The method of claim 1 wherein the Set-Top Box is connected to one or more speakers on which audio content is presented to the one or more viewers.
- 10. (Withdrawn) The method of claim 1 wherein the Set-Top Box assists in presenting digital content to the one or more viewers by receiving the digital content and providing the digital content to a content presentation device.
- 11. (Withdrawn) The method of claim 10 wherein the content presentation device is a television.
- 12. (Withdrawn) The method of claim 1 wherein the Set-Top Box assists in presenting digital content to the one or more viewers by modifying received digital content before the digital content is provided to a content presentation device.
- 13. (Withdrawn) The method of claim 1 wherein the Set-Top Box assists in presenting digital content to the one or more viewers by generating content to be provided to a content presentation device.
- 14. (Withdrawn) The method of claim 1 wherein the event message is sent using a User Datagram Protocol.

- 15. (Withdrawn) The method of claim 1 including, in response to detecting a removal of AC power from the Set-Top Box, sending an event message to the event server indicating the removal of AC power.
- 16. (Withdrawn) The method of claim 1 including receiving a ping message from the event server, and in response sending a ping response message that indicates that the Set-Top Box is functioning.
- 17. (Withdrawn) The method of claim 1 including receiving a message from the event server requesting status information related to the Set-Top Box, and in response gathering the requested status information and sending the gathered information to the event server.
- 18. (Withdrawn) The method of claim 1 including receiving a message from the event server requesting information from the one or more viewers, and in response obtaining the requested information from the one or more viewers and sending the obtained information to the event server.
- 19. (Withdrawn) The method of claim 1 wherein the detected interaction is an instruction to change a channel.
- 20. (Withdrawn) The method of claim 1 wherein the detected interaction is an instruction to control flow of digital content being presented.
- 21. (Withdrawn) The method of claim 1 wherein digital content is sent from a content server to the Set-Top Box in a multi-cast mode.
- 22. (Withdrawn) The method of claim 1 wherein digital content is sent from a content server to the Set-Top Box in a single-cast mode.

23. (Withdrawn) A computer-readable medium encoded with computer software adapted to cause a computing device to perform a method comprising:

at the computing device, monitoring received input from one or more viewers, the computing device comprising a battery backup, the computer software comprising a software component adapted to send an event notification responsive to a determination that the computing device is no longer receiving AC power; and

in response to detecting that the received input is an interaction of a type of interest, sending an event message to an event server that identifies the type of the detected interaction and that includes an indication of the computing device or of one or more of the one or more viewers and receiving new digital content responsive to the event message.

- 24. (Withdrawn) The computer-readable medium of claim 23 wherein the computing device is a Set-Top Box.
- 25. (Withdrawn) The computer-readable medium, of claim 23 wherein the computer-readable medium is a memory of the computing device.
- 26. (Withdrawn) The computer-readable medium of claim 23 wherein the method further comprises transmitting a generated data signal containing digital content.
- 27. (Withdrawn) The computer-readable medium of claim 23 wherein the computer software comprises instructions that when executed cause the computing device to perform the method.
 - 28. (Withdrawn) A computing device comprising:

at the computing device, a monitoring component capable of monitoring received input from one or more viewers, the computing device comprising a battery backup, the computing device comprising a software component adapted to send an event notification responsive to a determination that the computing device is no longer receiving AC power; and

a notification component capable of, in response to detecting that the received input is an interaction of a type of interest, sending an event message to an event server that identifies the type of the detected interaction and that includes an indication of the computing device or of the one or more viewers and receiving new digital content responsive to the event message.

- 29. (Withdrawn) The computing device of claim 28 wherein the monitoring component and the notification component are executing in memory of the computing device.
- 30. (Withdrawn) The computing device of claim 28 wherein the computing device is a Set-Top Box.
 - 31. (Withdrawn) A computing device, comprising:

means for monitoring received input from one or more viewers, the computing device comprising a battery backup, the computer software comprising a software component adapted to send an event notification responsive to a determination that the computing device is no longer receiving AC power; and

means for, in response to detecting that the received Input is an Interaction of a type of interest, sending an event message to an event server that identifies the type of the detected interaction and that includes an indication of the computing device or of the one or more viewers and receiving new digital content responsive to the event message.

32. (Currently Amended) A method comprising:

at an event tracking server, the event tracking server adapted to monitor previous displays of a specified advertisement and analyze subsequent interaction events to determine a disapproval by advertisement viewers of the specified advertisement, the event tracking server adapted to change advertisement content responsive to the disapproval by advertisement viewers:

receiving a plurality of event messages that are each sent from one of multiple Set-Top Boxes in response to an interaction with the one Set-Top Box

by one or more viewers of a <u>corresponding</u> content presentation device associated with the one Set-Top Box;

determining one or more of the Set-Top Boxes from which an event message has not been received for a predetermined period of time;

sending a status message to each of the determined one or more Set-Top Boxes;

determining a current status of each of the determined one or more Set-Top Boxes based on responses received to the one or more sent status messages; and

tracking audience information for presented digital content based on the received event messages and on the determined current status of at least some of the Set-Top Boxes.

- 33. (Previously Presented) The method of claim 32 including determining a current event status for each of the Set-Top Boxes from which a corresponding event message of the plurality of event messages has been received during a predetermined period of time based on those received event messages.
- 34. (Withdrawn) The method of claim 32 wherein multiple groups of content are being simultaneously presented to distinct content presentation devices, and including tracking audience information for each of the multiple groups of content.
- 35. (Previously Presented) The method of claim 32 wherein the receiving of the plurality of event messages is in real-time with respect to corresponding interactions.
- 36. (Previously Presented) The method of claim 32 wherein the plurality of event messages each additionally include information related to the one or more viewers of the content presentation device associated with the one Set-Top Box from which the event message was received.

- 37. (Withdrawn) The method of claim 32 wherein the event messages each additionally include information related to the content being presented when the interaction occurs with the Set-Top Box from which the event message was received.
- 38. (Previously Presented) The method of claim 32 including presenting digital content to the content presentation device.
- 39. (Previously Presented) The method of claim 32 including sending digital content to the Set-Top Boxes for presentation on content presentation devices associated with corresponding Set-Top Boxes.
- 40. (Withdrawn) The method of claim 10 wherein the content presentation device is a television.
- 41. (Original) The method of claim 32 wherein the status message is sent using a reliable transmission protocol.
 - 42. (Original) The method of claim 32 wherein the status message is a ping message.
- 43. (Previously Presented) The method of claim 32 including requesting status information from at least one of the Set-Top Boxes that is related to the determined one or more Set-Top Boxes, and in response receiving the requested status information and using the received information in the determining of the current status for the one or more Set-Top Boxes.
- 44. (Previously Presented) The method of claim 32 including requesting from at least one of the Set-Top Boxes information from one or more of the viewers of a corresponding content presentation device associated with each Set-Top Box, and in response receiving the requested viewer information and using the received information in the tracking of the audience

information.

- 45. (Previously Presented) The method of claim 32 wherein digital content is sent from a content server to the multiple Set-Top Boxes in a multi-cast mode.
- 46. (Previously Presented) The method of claim 32 wherein distinct digital content is sent from a content server to each of the multiple Set-Top Boxes in a single-cast mode.
- 47. (Currently Amended) A computer-readable medium encoded with computer software adapted to cause a computing device to perform a method comprising:

at the computing device, the computing device adapted to monitor previous displays of a specified advertisement and analyze subsequent interaction events to determine a disapproval by advertisement viewers of the specified advertisement, the computing device adapted to change advertisement content responsive to the disapproval by advertisement viewers:

receiving a plurality of event messages that are each sent from one of multiple remote computing devices in response to an interaction with the one remote computing device by one or more viewers of a corresponding content presentation device associated with the one remote computing device; determining one or more of the remote computing devices from which an event message has not been received for a predetermined period of time;

sending a status message to each of the determined one or more remote computing devices; and

determining a current status of each of the determined one or more remote computing devices based on responses received to the sent status message, so that audience information for presented digital content can be tracked based on the received event messages and on the determined current status of at least some of the remote computing devices.

48. (Withdrawn) The computer-readable medium of claim 23 wherein the computing device is an Audience Tracking Server.

49. (Currently Amended) A computing device comprising:

a message receiver component capable of receiving a plurality of event messages that are each sent from one of multiple remote computing devices in response to an interaction with the one remote computing device by one or more viewers of a <u>corresponding</u> content presentation device associated with the one remote computing device;

a remote computing devices status component capable of determining one or more of the remote computing devices from which an event message has not been received for a predetermined period of time, of sending a status message to each of the determined one or more remote computing devices, and of determining a current status of each of the determined one or more remote computing devices based on responses received to the one or more sent status messages; and

an audience tracker component capable of tracking audience information for presented digital content based on the received event messages and on the determined current status of at least some of the remote computing devices, the audience tracker adapted to monitor previous displays of a specified advertisement and analyze subsequent interaction events to determine a disapproval by advertisement viewers of the specified advertisement, the computing device adapted to change advertisement content responsive to the disapproval by advertisement viewers.

50. (Currently Amended) A method comprising:

at a server, the server adapted to monitor previous displays of a specified advertisement and analyze subsequent interaction events to determine a disapproval by advertisement viewers of the specified advertisement, the server adapted to change advertisement content responsive to the disapproval by advertisement viewers:

receiving a plurality of event messages that are each sent from one of multiple Set-Top Boxes in response to an interaction with the one Set-Top Box

by one or more viewers of a corresponding display device associated with the one Set-Top Box;

identifying, from the event messages, viewers to whom digital content is currently being presented; and

selecting, based on the identified viewers, distinct digital content to be presented to multiple display devices, a first subset of the distinct digital content selected for presentation in a manner so as to minimize interest in the identified viewers in continuing to view the presentation of digital content.

- 51. (Previously Presented) The method of claim 50 wherein the selected digital content is the specified advertisement.
- 52. (Previously Presented) The method of claim 51 wherein the specified advertisement is selected based on demographics of the one or more viewers.
- 53. (Previously Presented) The method of claim 52 wherein the specified advertisement is selected only when the demographics of the one or more viewers exceeds a threshold.
- 54. (Previously Presented) The method of claim 51 wherein the specified advertisement is selected based on a number of viewers.
- 55. (Previously Presented) The method of claim 54 wherein the specified advertisement is selected only when the number of viewers exceeds a threshold.
- 56. (Previously Presented) The method of claim 50 wherein the selected digital content is presented on the multiple display devices only temporarily.
- 57. (Previously Presented) The method of claim 50 wherein the distinct digital content is selected based on a change in demographics of the identified viewers in at least near real-time.

- 58. (Previously Presented) The method of claim 50 wherein the distinct digital content is selected based on a change in a number of the identified viewers in at least near real-time.
- 59. (Previously Presented) The method of claim 50 wherein the distinct digital content is selected based on a real-time change in the identified viewers.
- 60. (Previously Presented) The method of claim 50 including sending the selected digital content to display devices for presentation.
- 61. (Previously Presented) The method of claim 50 including notifying a content server to send the selected digital content to multiple display devices for presentation.
- 62. (Currently Amended) The method of claim 50 wherein the distinct digital content is one of multiple different groups of content available for selection, and wherein a second subset of the distinct digital content is selected for presentation in a manner so as to maximize revenue provided by a third party based on the identified viewers.
- 63. (Currently Amended) The method of claim 50 wherein the distinct digital content is one of multiple different groups of content available for selection, and wherein a second subset of the distinct digital content is selected for presentation in a manner so as to maximize interest in the identified viewers in continuing to view presentation of content.
 - 64. (Previously Presented) A method comprising:

at a server, the server adapted to monitor previous displays of a specified advertisement and analyze subsequent interaction events to determine a disapproval by advertisement viewers of the specified advertisement, the server adapted to change advertisement content responsive to the disapproval by advertisement viewers:

receiving a plurality of event messages that are each sent from one of

multiple Set-Top Boxes in response to an interaction with the one Set-Top Box by one or more viewers of a corresponding display device associated with the one Set-Top Box:

identifying, from the event messages, viewers to whom digital content is currently being presented: and

selecting based on the identified viewers distinct digital content to be presented to multiple display devices:

wherein the distinct digital content is one of multiple different groups of digital content available for selection, and wherein the distinct digital content is selected for presentation in a manner so as to minimize interest in the identified viewers in continuing to view presentation of digital content.

- 65. (Currently Amended) The method of claim 50 wherein the distinct digital content is one of multiple different groups of digital content available for selection, and wherein a second subset of the distinct digital content is selected for presentation in a manner so as to maximize interest in viewers to whom other digital content is being presented to select the distinct digital content for viewing.
- 66. (Currently Amended) A computer-readable medium encoded with computer software adapted to cause a computing device to perform a method comprising:

at a server, the server adapted to monitor previous displays of a specified advertisement and analyze subsequent interaction events to determine a disapproval by advertisement viewers of the specified advertisement, the server adapted to change advertisement content responsive to the disapproval by advertisement viewers:

receiving a plurality of event messages that are each sent from one of multiple remote computing devices in response to an interaction with the one remote computing device by one or more viewers of a corresponding display device associated with the one remote computing device:

identifying, from the event messages, viewers to whom digital content

is currently being presented; and

selecting based on the identified viewers distinct digital content to be presented to multiple display devices, wherein the distinct digital content is selected for presentation in a manner so as to minimize interest in the identified viewers in continuing to view the presentation of digital content.

67. (Currently Amended) A method comprising:

at a server, the server adapted to monitor previous displays of a specified advertisement and analyze subsequent interaction events to determine a disapproval by advertisement viewers of the specified advertisement, the server adapted to change advertisement content responsive to the disapproval by advertisement viewers:

receiving one or more event messages from a Set-Top Box that are each in response to an interaction with the Set-Top Box by one or more viewers of an associated television;

identifying, from the event messages, one or more viewers to whom digital content is currently being presented; and

selecting based on the identified one or more viewers distinct digital content to be presented to the television, wherein the distinct digital content is selected for presentation in a manner so as to minimize interest in the identified one or more viewers in continuing to view the presentation of digital content.

- 68. (Previously Presented) The method of claim 67 wherein the distinct digital content is selected based on demographics of multiple viewers of the television.
- 69. (Previously Presented) The method of claim 67 wherein a certain advertisement is selected as the distinct digital content based on real-time demographics of the one or more viewers.
 - 70. (Previously Presented) The method of claim 67 wherein the distinct digital content is

selected based on a type of one or more interactions that are not content control instructions.

71. (Currently Amended) A computer-readable medium encoded with computer software adapted to cause a computing device perform a method comprising:

at a server, the server adapted to monitor previous displays of a specified advertisement and analyze subsequent interaction events to determine a disapproval by advertisement viewers of the specified advertisement, the server adapted to change advertisement content responsive to the disapproval by advertisement viewers:

receiving one or more event messages from a remote computing device that are each in response to an interaction with the remote computing device by one or more viewers of an associated television:

identifying, from the one or more event messages, one or more viewers to whom digital content is currently being presented; and

selecting, based on the identified one or more viewers, distinct digital content to be presented to the television, wherein the distinct digital content is selected for presentation in a manner so as to minimize interest in the identified one or more viewers in continuing to view the presentation of digital content.

72. (Withdrawn) A method for detecting unauthorized viewing of content being presented to multiple display devices each associated with one of multiple remote Set-Top Boxes, the method comprising:

receiving a plurality of event messages that are each sent from one of the multiple Set-Top Boxes in response to an interaction with that Set-Top Box by one or more viewers of the display device associated with that Set-Top Box; and

identifying from the event messages that the content is not authorized to be presented on the display device associated with one of the Set-Top Boxes.

73. (Withdrawn) The method of claim 72 including halting the sending of the content to the display device associated with the one Set-Top Box based on the identifying.

- 74. (Withdrawn) The method of claim 72 wherein the identifying is based on information in one or more event messages received from the one Set-Top Box.
- 75. (Withdrawn) The method of claim 72 wherein the identifying is based on not receiving one or more event messages from the one Set-Top Box.
- 76. (Withdrawn) The method of claim 72 wherein the identifying is performed in a realtime manner.
- 77. (Withdrawn) A computer-readable medium whose contents cause a computing device to detect unauthorized viewing of content being presented to multiple display devices each associated with one of multiple remote computing devices, the detecting of the unauthorized viewing by performing a method comprising:

receiving a plurality of event messages that are each sent from one of the multiple remote computing devices in response to an interaction with that remote computing device by one or more viewers of the display device associated with that remote computing device; and

identifying from the event messages that the content is not authorized to be presented on the display device associated with one of the remote computing devices.

78. (Withdrawn) A method for monitoring content being presented on one or more remote display devices each associated with a distinct remote Set-Top Box, the monitoring based on event messages provided by the Set-Top Boxes, the method comprising:

receiving an indication to monitor content being presented on one or more remote display devices each associated with a distinct remote Set-Top Box;

receiving one or more event messages from one or more of the Set-Top Boxes that are each in response to an interaction with one of the Set-Top Boxes by one or more viewers of the display device associated with that one Set-Top Box;

determining based on the received event messages the content that is being presented

on the display devices; and providing an indication of the determined content.

- 79. (Withdrawn) The method of claim 78 including presenting the determined content.
- 80. (Withdrawn) The method of claim 78 including verifying authority of a requester that supplied the indication to monitor the content before the providing of the indication of the determined content to the requester.
- 81. (Withdrawn) The method of claim 78 including monitoring multiple distinct groups of content each being presented on at least one remote display device associated with a remote Set-Top Box based on event messages received from those Set-Top Boxes, and providing indications of the multiple distinct groups of content simultaneously.
- 82. (Withdrawn) The method of claim 78 wherein the monitoring is performed in real-time.
- 83. (Withdrawn) A computer-readable medium whose contents cause a computing device to monitor content being presented on one or more remote display devices each associated with a distinct remote computing device, the monitoring based on event messages provided by the remote computing devices, the monitoring of the content by performing a method comprising:

receiving an indication to monitor content being presented on one or more remote display devices each associated with a distinct remote computing device;

receiving one or more event messages from one or more of the computing devices that are each in response to an interaction with one of the computing devices by one or more viewers of the display device associated with that one computing device;

determining based on the received event messages the content that is being presented on the display devices; and providing an indication of the determined content.

84. (Withdrawn) A method for determining popularity of at least one of multiple groups of content each being presented to multiple display devices, each display device associated with one of multiple remote Set-Top Boxes, the method comprising:

receiving a plurality of event messages that are each sent from one of the multiple Set-Top Boxes in response to an interaction with that Set-Top Box by one or more viewers of the display device associated with that Set-Top Box;

determining based on the received event messages a number of display devices on which at least one of the multiple groups of content is being presented; and

providing an indication of the determined number of display devices for at least one of the multiple groups of content.

- 85. (Withdrawn) The method of claim 84 wherein the number of display devices is determined for each of the multiple groups of content, and wherein the providing of the indication includes providing an indication of the one group of content.
- 86. (Withdrawn) The method of claim 84 including determining based on the received event messages a number of viewers viewing at least one of the multiple groups of content.
- 87. (Withdrawn) The method of claim 84 wherein the determining of the number of display devices is performed in a real-time manner.
- 88. (Withdrawn) A computer-readable medium whose contents cause a computing device to determine popularity of at least one of multiple groups of content each being presented to multiple display devices, each display device associated with one of multiple remote computing devices, the determining of the popularity by performing a method comprising:

receiving a plurality of event messages that are each sent from one of the multiple remote computing devices in response to an interaction with that remote computing device by one or more viewers of the display device associated with that remote computing device;

determining based on the received event messages a number of display devices on

which at least one of the multiple groups of content is being presented; and providing an indication of the determined number of display devices for at least one of the multiple groups of content.

89. (Withdrawn) A method for adjusting user interface functionality provided in conjunction with content being presented on a remote display device associated with a remote Set-Top Box, the adjusting based on event messages provided by the Set-Top Box, the method comprising:

receiving one or more event messages from the Set-Top Box that are each in response to an interaction with that Set-Top Box during which one or more viewers of the associated display device invoke provided user interface functionality;

determining based on the user interface functionality invocations to adjust the user interface functionality provided to the viewers; and

adjusting the user interface functionality provided to the viewers.

- 90. (Withdrawn) The method of claim 89 wherein the adjusting of the provided user interface functionality includes enhancing the provided user interface functionality based on a level of previous user interface functionality invocations.
- 91. (Withdrawn) The method of claim 89 wherein the adjusting of the provided user interface functionality includes decreasing the provided user interface functionality based on a level of previous user interface functionality invocations.
- 92. (Withdrawn) The method of claim 89 wherein the adjusting of the provided user interface functionality includes modifying types of content flow control functionality provided.
- 93. (Withdrawn) The method of claim 89 including providing a warning to the viewers based on the previous user interface functionality invocations.

- 94. (Withdrawn) The method of claim 89 wherein the adjusting is performed in a real-time manner.
- 95. (Withdrawn) A computer-readable medium whose contents cause a computing device to adjust user interface functionality provided in conjunction with content being presented on a remote display device associated with a remote computing device, the adjusting based on event messages provided by the remote computing device, the adjusting by performing a method comprising:

receiving one or more event messages from the remote computing device that are each in response to an user interface functionality

interaction with that remote computing device by one or more viewers of the associated display device;

determining based on the user interface functionality interactions to adjust the user interface functionality provided to the viewers; and adjusting the user interface functionality provided to the viewers.

96. (Withdrawn) A method for determining reactions of viewers to content being presented to multiple display devices, each display device associated with one of multiple remote Set-Top Boxes, the method comprising:

receiving a plurality of event messages that are each sent from one of the multiple Set-Top Boxes in response to an interaction with that Set-Top Box by one or more viewers of the display device associated with that Set-Top Box;

determining based on the received event messages the display devices that change whether the content is being presented; and

providing an indication of the reaction of the viewers to the content based on the determined display device changes.

97. (Withdrawn) The method of claim 96 wherein the determining is based on interactions

that occur during the presenting of the content.

- 98. (Withdrawn) The method of claim 96 wherein the determining is based on interactions that occur shortly after ending the presenting of the content.
- 99. (Withdrawn) The method of claim 96 wherein the determining is based on interactions that occur shortly after beginning the presenting of the content.
- 100. (Withdrawn) The method of claim 96 wherein the indicated reaction is negative when the determined display changes show the display devices stopping the presenting of the content.
- 101. (Withdrawn) The method of claim 96 wherein the determining is performed In a real-time manner.
- 102. (Withdrawn) A computer-readable medium whose contents cause a computing device to determine reactions of viewers to content being presented to multiple display devices, each display device associated with one of multiple remote computing devices, the determining of the reaction by performing a method comprising:

receiving a plurality of event messages that are each sent from one of the multiple remote computing devices in response to an interaction with that remote computing device by one or more viewers of the display device associated with the remote computing device;

determining base on the received event messages the display devices that change whether the content is being presented; and

providing an indication of the reaction of the viewers to the content based on the determined display device changes..